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Average Return to Capacity Dates and Acreage of Wheat

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The acreage sown to wheat, either in autumn or spring, in any year is readily available on a county basis. The average return to capacity dates for a county as a whole can be deduced from county averages of potential transpiration and of rainfall. Average dates for farmland areas only are not easily deduced, because although average transpirations are available, average rainfalls are not. This disadvantage cannot be overcome without a large expenditure of time, so this memorandum compares the mean return-to-capacity date over the entire county with the total wheat acreage sown as contained in 1967 June returns.

The results are as follows:-

<u>Average</u> <u>Return to Capacity</u>		<u>County</u>	<u>1000 acres</u>		<u>Percentage</u>
			<u>Total</u>	<u>Wheat</u>	
June	19	Merioneth	97	0.0	0.0
	21	Caernarvon	128	0.4	0.3
July	21	Westmorland	210	0.6	0.3
	23	Brecon	166	1.2	0.7
	26	Glamorgan	195	4.0	2.1
August	2	Carmarthen	379	0.1	0.0
	4	Montgomery	269	2.7	1.0
	12	Cardigan	245	0.2	0.1
	13	Cumberland	490	2.7	0.6
	27	Radnor	161	0.9	0.5
	27	Pembroke	284	1.2	0.4
September	5	Monmouth	203	5.7	2.8
	6	Lancashire	600	17.9	3.0
	11	Denbigh	250	2.2	0.9
	14	Cornwall	641	3.7	0.6
	14	Devon	1149	18.0	1.6
	22	W. Riding	941	60.5	6.4
	23	Anglesey	134	1.6	1.2
	27	Northumberland	592	23.3	3.9
	30	N. Riding	782	26.7	3.4
	30	Durham	355	13.1	3.7
October	2	Derby	404	14.5	3.6
	10	Stafford	501	29.1	5.8
	14	Somerset	794	31.2	3.9
	14	Dorset	453	28.7	6.3
	15	Cheshire	448	12.3	2.7
	15	Hereford	441	40.1	9.1
	17	Gloucester	593	62.0	10.5
	22	Shropshire	697	44.2	6.3
	24	Flint	115	2.6	2.3
	26	Wiltshire	629	65.0	10.3
	26	Sussex	573	56.7	9.9

<u>Average</u>		<u>County</u>	<u>1000 acres</u>		<u>Percentage</u>
<u>Return to Capacity</u>			<u>Total</u>	<u>Wheat</u>	
October	29	Hampshire	606	64.0	10.6
November	2	E. Riding	642	76.0	11.8
	4	Worcester	338	33.0	9.8
	4	Warwick	441	61.1	13.9
	5	Leicester	431	52.6	12.2
	5	Oxford	378	49.6	13.1
	7	Buckingham	355	45.3	12.7
	7	Rutland	83	11.0	13.2
	8	Surrey	174	14.0	8.0
	10	Northampton	482	84.0	17.2
	11	Nottingham	386	51.4	13.3
	16	Kent	619	71.6	11.6
	16	Berkshire	313	42.2	13.5
	20	Kesteven	401	84.3	21.0
	22	Hertford	269	48.1	17.9
	25	Norfolk	999	143.6	14.4
	26	Lindsey	827	144.5	17.5
	29	Suffolk	733	122.4	16.7
December	1	Bedford	228	39.7	17.4
	4	Essex	669	160.2	24.0
	5	Holland	240	62.6	26.0
	11	Huntingdon	259	66.1	25.5
	12	Cambridge	458	118.2	25.8

These figures may now be summarized as follows:-

<u>Mean</u>		<u>Total</u>	<u>1000 acres</u>		<u>Percentage</u>
<u>Return Date</u>			<u>Wheat (1967)</u>		
August	5	2624	14.0		0.5
September	11	2843	47.5		1.7
	26	2804	125.2		4.5
October	12	3041	155.9		5.1
	24	3213	294.5		9.2
November	6	3710	478.0		12.9
	23	4161	656.7		15.8
December	7	1854	446.8		24.1

Even allowing for the limitations of the generalized data, there is a clear relationship between total acreage of wheat and the meteorological conditions which facilitate autumn sowing.

Any comments or suggestions on this paper should be sent to the Author.

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